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PART III:

DEPARTMENT OF TRANSPORTATION

Coast Guard

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NAVIGATION SAFETY REGULATIONS

DEPARTMENT OF TRANSPORTATION

Coast Guard

[33 CFR Part 164]

[CGD 74-77]

NAVIGATION SAFETY REGULATIONS

Proposed Testing Requirements

This notice proposes rules prescribing navigation practices and equipment and testing requirements for all vessels of 1600 gross tons and over when operating on the navigable waters of the United States, except the Panama Canal and St. Lawrence Seaway. These rules would be published in Subchapter P of Title 33, Code of Federal Regulations, as a new Part 164 entitled "Navigation Safety Regulations." The purposes of the rules are to prevent vessel collisions and groundings and protect the navigable waters from environmental harm resulting from vessel collisions and groundings.

Written Comments. Interested persons are invited to participate in this rule making by submitting written data, views, or arguments to the Executive Secretary, Marine Safety Council (G-CMC/81), Room 8117, Department of Transportation, Nassif Building, 400 Seventh Street, SW., Washington, D.C. 20590. Written comments should include the docket number of this notice, the name and address of the person submitting the comments, and the specific section of the proposal to which each comment is addressed. Two or more copies of comments submitted are encouraged. Suggested new or different regulations will be welcome.

Copies of all written comments will be available for examination in Room 8117, Department of Transportation, Nassif Building, 400 Seventh Street, SW., Washington, D.C.

Public hearings. The Coast Guard will hold two public hearings on this proposal to receive written and oral comments from interested persons. The first hearing will be held on June 11, 1976, beginning at 9:00 a.m. in room 2232, Department of Transportation, Nassif Building, 400 Seventh Street, SW., Washington, D.C. The second hearing will be held on June 17, 1976, beginning at 9:30 a.m. in Room 503, Custom House, 555 Battery Street, San Francisco, California. It is requested that each person desiring to make oral comments at either hearing notify the Executive Secretary at the above stated address and specify the approximate length of time needed for the presentation. Submission of a written summary or copy of the oral presentation is encouraged. The time for presentation may be apportioned by the Coast Guard representative conducting the public hearings.

Closing date for comments. All relevant communications received on or before July 6, 1976, will be fully considered before final action is taken on this proposal. The proposal may be changed in light of the comments received; however, acknowledgement of individual comments will not be made.

Background of Proposal. An advance notice of proposed rule making was issued for this proposal in the June 28, 1974, issue of the FEDERAL REGISTER (39 FR 24157).

This proposal is based in part upon—

(1) Comments received on the advance notice;

(2) Consultations with members of the marine industry;

(3) Recommendations on navigation watchkeeping contained in Resolution A.285(viii) of the Intergovermental Maritime Consultative Organization (IMCO), adopted on November 20, 1973;

(4) Proceedings of the National Symposium on Marine Transportation Management, April 29 through May 1, 1975;

(5) Extensive Coast Guard discussions and staff work; and

(6) A recent Coast Guard study concerning current operational practices and equipment used on vessels.

(A copy of the study may be obtained by writing to the Commandant (G-WLE-4/73), U.S. Coast Guard, Department of Transportation, 400 Seventh Street, SW., Washington, D.C. 20590.) Consideration was also given to navigation and equipment requirements currently in effect for Canadian waters.

In the Coast Guard study, which was completed in August, 1975, the equipment and navigation practices of approximately 300 vessels of all types were analyzed. With few exceptions a large majority of the vessels were found to comply with the navigation practices and equipment proposed as requirements in this notice. The Coast Guard is concerned about the few vessels that do not currently use these practices and equipment. These few vessels pose a serious hazard to vessel navigation. The seriousness of the hazard is intensified when considering the following:

(1) An increasing number of large vessels are being used to transport hazardous cargoes in bulk.

(2) The tonnage of waterborne commerce in the United States is increasing at an average rate of almost 60 million tons per year.

(3) Most vessel casualties occur in coastal and harbor regions and, thus, pose an environmental hazard to our shorelines as well as to the navigable waters.

(4) The number of vessels involved in reported collisions, rammings and groundings involving commercial vessels in U.S. waters has increased from 1,185 in fiscal year 1965 to 1,918 in fiscal year 1975.

The advance notice discussed the hazards posed by vessel operations and portions of the discussion are quoted as follows:

"The increasing number of large vessels carrying hazardous cargoes in bulk on the navigable waters of the United States has created a significant and growing hazard to life, property, and the marine environment. Eighty percent of vessel casualties occur within coastal and harbor regions. The *Torrey Canyon* grounding, the *Tamano* grounding, the *Oregon Standard* and the *Arizona Standard* collision, and the tug *Carolyn* and *Weeks Barge No. 254* collision with the Chesapeake Bay Bridge and Tunnel, exemplified casualties that have occurred in waters adjacent to shore areas. Each of these casualties posed a significant threat to life, property, and the environment. Information regarding these incidents and similar incidents reveals that human error is often the primary cause of casualties. The conclusion of a study based on Coast Guard investigations is that human error is a contributing factor in 85 percent of casualties."

Fifty-one communications were received on the advance notice of proposed rule making. Each of the comments was considered in preparing this notice. The major comments and their disposition are summarized as follows:

a. Ten commenters stated that many of the requirements proposed in the advance notice have little applicability to towboats and other small vessels and, in particular, that many of the requirements are too burdensome and unrealistic when applied to these vessels. These comments show the need for further study of operational practices and equipment used on smaller vessels and of the effects that crew size and space and vessel construction limitations have on their operation. Accorlingly, the proposed regulations have been made applicable only to vessels of 1,600 and more gross tons. Any regulatory action applicable to smaller vessels will be based upon additional study and published as a proposal after consultation with those in the marine industry to be affected by the regulations and with other interested parties.

b. Seven commenters recommended improvements in the licensing, training, and regulation of vessel personnel as a better approach to preventing vessel casualties. Regulations concerning licensing of vessel personnel, including their training and experience, is an important ongoing activity carried out by the Coast Guard. This activity is under continual study leading, when necessary, to regulatory revision. However, the Coast Guard has determined that, in addition to continuing revision of regulations concerning licensing of personnel, the requirements contained in this proposal are essential to reduce the occurrence of vessel casualties.

c. Four commenters objected to limiting the applicability of the proposed regulations to seagoing vessels on the basis that inland waters are no less vulnerable to casualties and because the term "seagoing vessels" is unclear. The limitation has been deleted from the regulations proposed in this notice; accordingly, the proposed regulations apply to both seagoing and non-seagoing vessels. The Coast Guard recognizes that some of the proposed requirements may not have application to particular vessels; however, proposed § 164.53 contains a procedure for obtaining in appropriate cases an authorization from the Captain of the Port to deviate from specific requirements.

d. Four commenters expressed reservations concerning the proposal that one of the radar units required for a vessel over 10,000 gross tons be equipped with an "anti-collision" device. The commenters stated that the device is still in the

developmental stage. The requirement has been deleted from the proposed regulations and replaced with a requirement in proposed § 164.35(j) to have equipment in the pilothouse to plot relative motion of vessels. The Coast Guard is continuing to study possible requirement of radar anti-collision devices.

e. Five commenters objected to the proposal to require a vessel to maintain a plot of its movement and lay out a trackline of intended vessel movement. The objections were that it is not possible to follow the intended trackline, that this additional work would distract the operator from observing passing aids to navigation, and that a plot is not useful in many circumstances such as while navigating in a narrow channel. While these objections may be valid with respect to some small vessels with limited crews, these vessels have been removed from the scope of the proposed rules. These operational practices are considered necessary and practical for vessels of 1,600 gross tons and over and are in fact followed by most such vessels.

f. Four commenters objected to the requirement to test vital equipment before entering or getting underway in U.S. navigable waters. The commenters felt that testing is not necessary since equipment malfunctions will be detected in normal operation. The testing requirements have been retained and are set forth in proposed § 164.25. Much of the equipment tested is not used during a long sea voyage or during periods between voyages and its availability for use is essential for safe inshore navigation.

g. Four commenters suggested that to ensure uniformity the Coast Guard should postpone issuance of regulations until international standards have been developed. The Coast Guard has determined that because of the severity of the hazards with which these regulations are concerned a postponement is not appropriate. Any inconsistencies between the regulations proposd in this notice and subsequently developed international standards covering the same subject matter will be resolved as they occur.

The issue of whether regulations should be developed currently or delayed until international standards are formulated was discussed recently at the National Symposium on Marine Transportation Management. There was considerable support expressed at the symposium for issuing regulations immediately.

Other comments on the advance notice are contained in following paragraphs that explain specific, proposed requirements.

Authority. The regulations proposed in this notice would be issued under the authority of Title I and Title II of the Ports and Waterways Safety Act of 1972 (Pub. L. 92-340, 86 Stat. 424 (33 U.S.C. 1224, 46 U.S.C. 391a)) as delegated to the Commandant of the Coast Guard in 49 CFR 1.46 (n) and under the authority of the Federal Water Pollution Control Act (Pub. L. 92-500, 86 Stat. 862 (33 U.S.C. 1321)) as delegated to the Commandant in 49 CFR 1.46(m).

The policies and purposes of these acts were discussed in the advance notice and are restated again as follows:

"Senate Report No. 92-724 (March 28, 1972) states that the purpose of the Ports and Waterways Safety Act of 1972 (Pub. L. 92-340, 86 Stat. 424) is to promote the safety and protect the environmental quality of ports, waterfront areas, and the navigable waters of the United States. Broad authority is granted by Title I of the Act to establish, operate, and maintain vessel traffic services and systems for ports, harbors, and other waters subject to congested vessel traffic and 'control vessel traffic in areas determined to be especialy hazardous, or under conditions of reduced visibility, adverse weather, vessel congestion, or other hazardous circumstances' in order to 'prevent damage to, or the destruction or loss of any vessel, bridge, or other structure on or in the navigable waters of the United States, or any land structure or shore area immediately adjacent to those waters; and to protect the navigable waters and the resources therein from environmental harm resulting from vessel or structure damage, destruction, or loss * * *'.

"In addition, Title II of the Ports and Waterways Safety Act of 1972 authorizes comprehensive regulations for the design, construction, alteration, repair, maintenance, and operation of tankers and certain other vessels. The reason stated for this provision of the Act is as follows: '[T]he carriage by vessels of certain cargoes in bulk creates substantial hazards to life, property, the navigable waters of the United States (including the quality thereof) and the resources contained therein * * * [and] existing standards for the design, construction, alteration, repair, maintenance, and operation of such vessels must be improved for the adequate protection of the marine environment.'

"The Federal Water Pollution Control Act (86 Stat. 862, 33 U.S.C. 1321(b)(1)) states the policy of the United States as follows: '[T]here should be no discharges of oil or hazardous substances into or upon the navigable waters of the United States, adjoining shorelines or into or upon the waters of the contigous zone.' Regulations issued under the authority of section 311(j) of this Act are required to be consistent with maritime safety and navigation laws."

Discussion of proposed regulations. Proposed § 164.11 expands considerably on the requirements proposed in the advance notice. However, the items proposed simply codify existing practices traditionally employed by prudent navigators and ship handlers. Publication of these fundamentals of navigation would not be necessary except that some vessels do not currently follow these practices. Also, some court decisions involving litigation arising from vessel casualties have reflected tolerance of substandard navigation practices leading to the casualties.

Section 164.11(a) and (b) require that the pilothouse of a vessel underway be manned with competent personnel assigned by the master or person in charge to direct and control the movement of the vessel and to fix the vessel's position. The term "adequate number" as used in §§ 164.11(a) and in 164.15(b) means enough personnel to perform all the necessary functions in the pilothouse and the engine room. The term "competent" as used in §§ 164.11(b) and in 164.15(b) means appropriately licensed or certificated with the ability and knowledge to do the job.

Section 164.11 (c) and (d) require that a vessel's position be fixed at intervals of at least every 15 minutes and that the fix, and if necessary the intended track, be plotted each time a fix is obtained. The 15 minute maximum time lapse between fixes was selected because the course made good at typical speeds of advance normally will allow time to compensate for set and drift. Longer times between fixes increase the probability of hazardous deviations from the intended track. Conversely, operation in shoal waters or channels or in conditions of strong wind or current or operations at high rates of speed require even more frequent fixes to ensure that the vessel is not standing into danger.

Section 164.11 (e) and (f) require the use of available electronic and other positioning equipment and references, including external fixed aids, and incorporate a prohibition against using buoys alone as a means of fixing the vessel's position.

Section 164.11(g) requires the master or person in charge to ensure that a proper lookout is maintained. A proper lookout is one of the most effective safety measures that can be used on board a vessel, since it is well known that radar can fail to detect small contacts or "lose" them in sea return or in a profusion of contacts. The term "proper" in § 164.11 (g) means an individual who is assigned exclusively to perform the duties of the lookout, who has adequate communication with the pilot house, who is placed in the most advantageous position to act as a lookout, who has adequate training, adequate hearing, adequate vision, and is not color blind.

Section 164.11(h) requires the evaluation of each closing visual and radar contact. Risk of collision must be continually evaluated in order to take timely evasive action if necessary. Several vessels may pose a threat at one time. All must be considered by the person directing the movement of the vessel. Tracking and evaluation may require computation of course, speed, and closest point of approach (though observation of bearing change may often suffice) but all closing contacts introduce risk of collision and the risks should be continually assessed until they no longer pose a threat to the vessel.

Section 164.11 (i) and (j) require the master or person in charge to ensure that rudder orders and engine speed and direction orders are executed as given. The misapplication or reversal orders to helm and engines are findings that appear regularly in accident reports. There are several factors which contribute to errors in execution of these orders. Some of the factors include careless or incompetent personnel, bridge design (which often places the person issuing orders some distance from the helm or annunciator, background noise which can garble an order, and an unfamiliar dialect or language which can confuse or mislead the helmsman. The master should examine his vessel and crew to determine

the existence of possible problem areas. If problems exist, he should take action to remedy them.

Section 164.11(k) requires the person directing the movement of the vessel to have knowledge of and to apply correctly variation and deviation in magnetic compasses and gyro compass error. The recently conducted Coast Guard study contains observations that many vessels have outdated deviation tables and that correct variation is frequently not readily available for rapid application to the magnetic course should the gyro compass fail. Gyro compass errors have also been observed to be unavailable or incorrectly applied.

Section 164.11(l) requires a qualified helmsman to be at the steering position at all times. This procedure is basic when using "hand" steering, but it is equally important when navigating in the automatic mode. Use of the auto pilot does not provide sufficient control in coastal and harbor waters due to the proximity of natural hazards and vessel congestion and does not permit prompt response necessary to shift rapidly from automatic to manual or hand steering.

The pilot-master conference required in proposed § 164.11(m) would minimize misunderstandings. Although the pilot is of course qualified, every vessel has its own peculiarities which frequently are known only to the crew and which often vary with draft, speed, trim, and sea state. Similarly, every channel and harbor is unique. A short explanation by the pilot of unusual navigation or maneuvering techniques necessary for safe navigation in the waterway will help to ensure the close cooperation required by the pilot and master in maneuvering the vessel, particularly if emergency action becomes necessary.

Section 164.11 (n), (o), and (p) requires the person directing the movement of the vessel to know the current, predicted set and drift, and tides for the area to be transited. Prediction of tide and current values and resultant set and drift are routine on most vessels. However, it is essential that all vessels and particularly deep draft vessels avoid any possibility of grounding. The prediction of adverse conditions would alert the master to delay proceeding until conditions were favorable.

Section 164.11(q) will eventually contain requirements for "Minimum Net Bottom Clearance." These requirements will be further developed as a notice of proposed rulemaking upon receipt of comments requested by the advance notice of proposed rulemaking on this subject (CGD 76–051) which is published separately in this issue of the FEDERAL REGISTER.

Section 164.11(r) requires the master or person in charge of a vessel underway to ensure that the anchor is ready for letting go.

Section 164.11(s) and (t) require the proper use and employment of light signals, day shapes, and fog signals in accordance with the appropriate "Rules of the Road". These items function to provide a warning of a vessel's presence and give an indication of its size and maneuverability. There have been numerous incidents in which inattention to these precautions have resulted in collisions.

Section 164.11(u) enumerates the conditions which should be considered in determining the most prudent speed at which a vessel should proceed. Regard for these factors will minimize hazard to both the vessel and the area it transits.

Section 164.15 proposes additional requirements for vessels underway in confined or congested waters. The requirements include—

(1) placing the propulsion machinery in the maneuvering mode;

(2) ensuring that the engine room is manned by an adequate number of competent persons to operate the vessel in the maneuvering mode;

(3) ensuring that persons are available for rapid anchoring in an emergency;

(4) manning the steering engine room;

(5) ensuring that the person manning the steering engine room is in communication with the pilothouse; and

(6) ensuring that the automatic pilot device is not in use. These requirements are essential to provide appropriate rapid response to emergency situations. In confined or congested waters there is little time for taking action in the event of an equipment failure or when rapid response is required to avoid a collision or grounding.

Section 164.16 is reserved for a list of confined or congested waters. The criteria for designation of certain areas as "confined or congested" are under development and will be published as a notice of proposed rulemaking.

Section 164.17 is reserved for regulations concerning "Tug Assistance in Confined Waters." This concept is presented in an advance notice of proposed rulemaking published in this issue of the FEDERAL REGISTER (CGD 76–025).

Section 164.19 contains requirements for vessels at anchor. These requirements are considered the minimum steps necessary to ensure the safety of vessels and structures in and around anchorages. Recent incidents in vessel anchorages, some of which have led to casualties, highlight the need for these requirements.

Section 164.23 requires the Captain of the Port or the appropriate vessel traffic service to be notified before a vessel gets underway in reduced visibility or when current, wind, or tide may abnormally affect the vessel's movements. This proposed requirement is informational only. The information will allow the Captain of the Port to advise mariners of any known hazards, existing or anticipated, which may be encountered upon getting underway.

Section 164.25 requires certain tests of navigation and control systems before entering or getting underway in the navigable waters of the United States.

Section 164.30 requires the possession of up-to-date charts and appropriate nautical publications for the area being transited. Seven commenters responding to the advance notice objected to the proposed requirements to maintain up-to-date charts and publications. Commenters who are operators of seagoing vessels contended that U.S. charts and publications are difficult to obtain while in foreign areas. The rule allows use of either current foreign charts and publications or the most recently obtainable U.S. charts and publications. Thus, a vessel in foreign trade could obtain charts and publications in a foreign port which would comply with the regulations. Appropriate charts and publications are basic to the safe navigation of all vessels; accordingly, this requirement has been retained.

Section 164.35 delineates equipment requirements for all vessels, including requirements to have a marine radar, gyro compass, magnetic compass with appropriate deviation tables, illuminated rudder angle indicator, a table of maneuvering and speed characteristics, a depth sounder and recorder, speed indicator, and equipment for plotting relative motion. The requirement in proposed § 164.35(e) for a rudder angle indicator is considered essential to enable the person directing the movement of the vessel to monitor compliance with helm orders, to be reminded of rudder position, and to aid in evaluating helm response. The display of characteristic vessel responses to helm and engines proposed in § 164.35 (f), including such information as acceleration and deceleration tables, turning radii at various speeds and standard rudder angles, is proposed to provide a quick reference for pilots and ship's officers.

Three commenters on the advance notice objected to the proposed requirement for an echo sounding device as not being necessary. It is necessary that a minimum net bottom clearance be retained at all times. Thus, the requirement is considered to be essential and has been retained. Similarly, four commenters considered a depth recorder to be of little value. Bottom profiles for comparison with the vessel's track are useful aids in both establishing and verifying a vessel's position and are considered to be most valuable to the inshore navigator. This requirement has therefore been retained.

Six commenters objected to the proposed requirement in the advance notice for a speed indicating device. This requirement has been modified in § 164.35 (i) to permit either a direct reading device or the use of revolutions per minute (RPM) indicators provided that they are accompanied by speed equivalent tables.

As previously stated, six commenters objected to the requirement proposed in the advance notice for "collision avoidance" radar. This requirement has been replaced by the requirement in proposed

§ 164.35(j) to have equipment for plotting relative motion available in the pilot house.

Section 164.37 requires that each vessel of 10,000 or more gross tons have a second marine radar in addition to the radar required by § 164.35(a). On a vessel of this size, loss of radar capability imposes an unacceptable risk factor. Therefore, the requirement has been retained although three commenters on the advance notice were in opposition.

The requirements that the radars have "S-band" (10 centimeters) capability and "X-band" (3 centimeters) capability have been dropped. The Coast Guard agrees with the seven commenters on the advance notice who maintained the requirements for both "S-band" and "X-band" capability are not appropriate. S-band radars are becoming less common on U.S. waters and U.S. installed RACONS may be used only with X-band equipment.

Section 164.39 requires each vessel of 35,000 gross tons or more to have a rate of turn indicator on the bridge. A rate of turn indicator provides the person directing the movement of the vessel with information on heading change before the swing can be detected visually or by compass. The device is therefore considered to be essential for a vessel of this size.

Section 164.51 authorizes deviations in an emergency from any rule in this part to the extent necessary to avoid endangering persons, property, or the environment. The section also requires the deviation to be reported to the nearest Captain of the Port or District Commander as soon as possible if the deviation must continue for more than a very brief time.

Section 164.53 provides for deviations from the rules in this part in other than emergency situations when authorized by the Captain of the Port. This section recognizes that routine deviations may be necessary and appropriate in the event of equipment failure or because of the particular service or locale of the vessel.

An environmental assessment has been conducted for these proposed regulations.

In consideration of the foregoing, it is proposed to amend Chapter I of Title 33, Code of Federal Regulations, by adding new Part 164 as follows:

PART 164—NAVIGATION SAFETY REGULATIONS

Sec.

164.01 Applicability.
164.11 Navigation underway: general.
164.15 Navigation underway: confined or congested waters.
164.16 List of confined or congested waters.
164.17 Tug assistance in confined waters.
164.19 Requirements for vessels at anchor.
164.23 Notification of getting underway.
164.25 Tests before entering or getting underway.
164.30 Charts, publications and equipment: general.
164.33 Charts and publications.
164.35 Equipment: all vessels.
164.37 Additional equipment: vessels of 10,000 or more gross tons.
164.39 Additional equipment: vessels of 35,000 or more gross tons.
164.51 Deviations from rules: emergency.
164.53 Deviation from rules: other than emergency.
164.61 Marine casualty record retention.

AUTHORITY: Sec. 311(j)(1), 86 Stat. 826 (33 U.S.C. 1321(j)(1)); sec. 201(3), 86 Stat. 428, as amended (46 U.S.C. 391a(3)); sec. 104, 86 Stat. 427 (33 U.S.C. 1224); 49 CFR 1.46(m) and (n)(4).

§ 164.01 Applicability.

This part applies to each self-propelled vessel of 1600 or more gross tons when it is operating in or on the navigable waters of the United States, except the Panama Canal and the St. Lawrence Seaway.

§ 164.11 Navigation underway: general.

The master or person in charge of each vessel underway shall ensure that:

(a) The pilothouse is constantly manned by an adequate number of persons to:

(1) Direct and control the movement of the vessel; and

(2) Fix the vessel's position;

(b) Each person performing a duty described in paragraph (a) of this section is competent to perform that duty;

(c) The vessel's position is fixed at least every 15 minutes;

(d) The position of the vessel at each fix, and the revised intended track of the vessel if necessary, are plotted on a chart of the area and the person directing the movement of the vessel is informed of the vessel's position.

(e) Electronic and other navigational equipment, external fixed aids to navigation, geographic reference points, and hydrographic contours are used when fixing the vessel's position;

(f) Buoys alone are not used to fix the vessel's position;

NOTE: Buoys are aids to navigation placed in approximate positions to alert the mariner to hazards to navigation or to indicate the orientation of a channel. Buoys may not maintain an exact position because strong currents, heavy seas, ice and collisions with vessels can move or sink them or set them adrift. Although buoys may corroborate a position fixed by other means, buoys cannot be used to fix a position. (See standard texts on nautical navigation practice such as Bowditch, Dutton, and Reisenberg.)

(g) A proper lookout is maintained;

(h) The danger of each closing visual or each radar contact is evaluated and the person directing the movement of the vessel knows the evaluation;

(i) Rudder orders are executed as given;

(j) Engine speed and direction orders are executed as given;

(k) Magnetic variation and deviation and gyro compass errors are known and correctly applied by the person directing the movement of the vessel;

(l) A person whom he has determined is qualified to steer the vessel is at the steering position at all times;

(m) If a pilot other than a member of the vessel's crew is employed—

(1) The pilot is informed of the maneuvering characteristics and peculiarities of the vessel and of any abnormal circumstances on the vessel that may affect its safe navigation; and

(2) The master or person in charge of the vessel is informed by the pilot of abnormal characteristics of the area to be transited that may affect the vessel's safe navigation and of non-routine maneuvers before the pilot makes them.

(n) Current values for the area to be transited are known by the person directing the movement of the vessel;

(o) Predicted set and drift are known by the person directing movement of the vessel;

(p) Tide values for the area to be transited are known by the person directing movement of the vessel;

(q) (Reserved)

Reserved for "Minimum Net Bottom Clearance." (To be developed.)

(r) The vessel's anchors are ready for letting go;

(s) Proper lights and day signals are displayed;

(t) Proper fog signals are sounded;

(u) The person directing the movement of the vessel sets the vessel's speed with consideration for—

(1) The prevailing visibility and weather conditions;

(2) The proximity of the vessel to fixed shore and marine structures;

(3) The tendency of the vessel underway to squat and suffer impairment of maneuverability when there is small underkeel clearance;

(4) The proportions of the vessel and the channel;

(5) The density of marine traffic;

(6) The damage that might be caused by the vessel's wake;

(7) The strength and direction of the current; and

(8) Any local vessel speed limit;

(v) The tests required by § 164.25 are made and recorded in the vessel's pilot house log; and

(w) The equipment required by this part is maintained in operable condition.

§ 164.15 Navigation underway: confined or congested waters.

In the confined or congested waters described in § 164.16, the master or person in charge of each vessel underway shall ensure that—

(a) Propulsion machinery is in the maneuvering mode;

(b) The engine room is manned by an adequate number of competent persons to operate the vessel in the maneuvering mode;

(c) Persons are available for rapid anchoring in an emergency;

(d) The steering engine room is manned to shift steering control from the pilot house to the steering engine room;

(e) The person required by paragraph (d) of this section is in communication with the pilot house;

(f) The automatic pilot device is not in use.

§ 164.16 List of confined or congested waters.

To be developed.

§ 164.17 Tug assistance in confined waters.

To be developed.

§ 164.19 Requirements for vessels at anchor.

The master or person in charge of each vessel that is anchored shall ensure that:

(a) Procedures are followed to detect a dragging anchor;

(b) A proper lookout is maintained;

(c) If an anchor drags, action is taken to ensure the safety of the vessel, structures, and other vessels;

(d) The vessel is ready to get underway whenever weather, tide, or current conditions are likely to cause its anchor to drag;

(e) Proper lights and day signals are displayed; and

(f) Proper fog signals are sounded.

§ 164.23 Notification of getting underway.

Whenever the visibility is less than 300 yards or whenever current, wind, or tide may abnormally affect the vessel's movement, no person may cause a vessel to get underway from an anchorage established by the Coast Guard or a berth or pier unless the Captain of the Port or the vessel traffic service for that area has been notified that the vessel is getting underway.

§ 164.25 Tests before entering or getting underway.

No person may cause a vessel to enter or get underway on the navigable waters of the United States unless, no more than 12 hours before entering or getting underway, the following equipment has been tested:

(a) Normal and secondary steering gear.

(b) All internal vessel control communications and vessel control alarms.

(c) Each emergency generator for at least fifteen minutes.

(d) The storage batteries for emergency lighting and power systems in vessel control and propulsion machinery spaces.

(e) Main propulsion machinery, ahead and astern.

§ 164.30 Charts, publications and equipment: general.

No person may operate or cause the operation of a vessel unless the vessel has the charts, publications, and equipment required by §§ 164.33 through 164.39 of this part.

§ 164.33 Charts and publications.

(a) Each vessel must have the following:

(1) Charts of the area transited that:

(i) Are of a large enough scale and have enough detail to enable safe navigation of the area;

(ii) Are the most recent published for the area and corrected; and

(iii) Are published by the National Ocean Survey, U.S. Army Corps of Engineers, or a river authority. (See also paragraph (b) of this section.)

(2) The current corrected copy of, or applicable extract from, each of the following publications, if it includes the area being transited:

(i) U.S. Coast Pilot.

(ii) Coast Guard Light List.

(iii) Notices to Mariners published by Defense Mapping Agency Hydrographic Center and local Coast Guard Notice to Mariners.

(iv) Tide Tables published by the National Ocean Survey.

(v) Tidal Current Tables published by the National Ocean Survey, or river current publication issued by the U.S. Army, Corps of Engineers, or a river authority.

(b) A vessel may have a chart or publication published by a foreign government instead of a chart or publication required by this section if the chart or publication contains similar information to the U.S. Government publication or chart. A vessel bound from a foreign port to a port in the United States may have the latest charts and publications that were available at previous ports of call.

§ 164.35 Equipment: all vessels.

Each vessel must have the following:

(a) A marine radar system for surface navigation.

(b) An illuminated magnetic steering compass mounted in a binnacle that can be read at the vessel's primary steering position.

(c) A current magnetic compass deviation table or graph for the steering compass, in the pilot house.

(d) An illuminated gyro compass or repeater that can be read at the vessel's primary steering station.

(e) An illuminated rudder angle indicator in the pilot house.

(f) A diagram, graph, or table, that shows the vessel's maneuvering and speed characteristics, in the pilot house.

(g) An echo depth sounding device that can be read in the pilot house.

(h) A device to continuously record the depth readings of the vessel's echo depth sounding device.

(i) An illuminated device in the pilot house that displays the speed of the vessel, such as a pitometer log, revolutions-per-minute counter with speed equivalent table or a direct read-out device such as a doppler indicator.

(j) Equipment in the pilot house for plotting relative motion.

§ 164.37 Additional equipment: vessels of 10,000 or more gross tons.

Each vessel of 10,000 or more gross tons must have, in addition to the radar system required in § 164.35(a), a second marine radar system for surface navigation.

§ 164.39 Additional equipment: vessels of 35,000 or more gross tons.

Each vessel of 35,000 or more gross tons must have an illuminated rate of turn indicator in the pilot house.

§ 164.51 Deviations from rules: emergency.

(a) In an emergency, any person may deviate from any rule in this part to the extent necessary to avoid endangering persons, property, or the environment.

(b) When a person must continue to deviate from any rule in this part because of an emergency, he shall report the deviation or cause it to be reported to the nearest Captain of the Port or Coast Guard District Commander as soon as possible.

§ 164.53 Deviations from rules: other than emergency.

(a) Any person may deviate from any rule in this part when authorized by the Captain of the Port.

(b) The Captain of the Port may authorize a deviation from any rule in this part if he determines that the deviation does not impair the safe navigation of the vessel and will not result in a violation of the rules for preventing collisions at sea. The authorization may be issued for any voyage or part of a voyage or, if the vessel operates solely in waters under the jurisdiction of the Captain of the Port, for any continuing operation or period of time the Captain of the Port specifies.

§ 164.61 Marine casualty record retention.

When a vessel is involved in a marine casualty as defined in 46 CFR 4.03–1, the master or person in charge of the vessel shall:

(a) Ensure compliance with 46 CFR Subpart 4.05, "Notice of Marine Casualty and Voyage Records;" and

(b) Ensure that the voyage records required by 46 CFR 4.05–15 are retained for:

(1) 30 days after the casualty if the vessel remains in the navigable waters of the United States; or

(2) 30 days after the return of the vessel to a United States port if the vessel departs the navigable waters of the United States within 30 days after the marine casualty.

Dated: May 3, 1976.

R. I. PRICE,
U.S. Coast Guard Chief, Office of Marine Environment and Systems.

[FR Doc.76–13209 Filed 5–5–76;8:45 am]

[33 CFR Part 164]

[CGD 76–025]

TUG ASSISTANCE IN CONFINED WATERS

Proposed Minimum Standards

The Coast Guard is considering amending Part 164 of Title 33, Code of Federal Regulations to require minimum standards for tug assistance for vessels operating in confined waters to reduce the potential for collisions, rammings, and groundings in these areas.

This advance notice of proposed rulemaking is being issued pursuant to the Coast Guard's policy of soliciting comments from the maritime industry in an

effort to identify a definite course of action and obtain data necessary for the promulgation of an effective regulation.

Interested persons are requested to assist the Coast Guard by submitting written comments, data, views, or arguments to the Executive Secretary, Marine Safety Council (G–CMC/81), room 8117, U.S. Coast Guard, Washington, D.C. 20590. A participant in this rulemaking procedure should furnish comments, views, data, or arguments to the Coast Guard as soon as possible but no later than July 6, 1976. Copies of material received will be available for examination in room 8117. There is no public hearing contemplated at this time. If it is determined to be in the public interest to proceed further after consideration of the available data and comments received in response to this notice, a notice of proposed rulemaking will be issued.

The proposed rules are intended to provide uniform guidance for the maritime industry and Captains of the Port for the use of tugs by vessels operating and maneuvering in confined waters and in docking and undocking. In the development of the requirements for these rules, the following are some of the factors to be considered:

a. Size of vessel,
b. Displacement,
c. Propulsion,
d. Availability of multiple screws or bow thrusters,
e. Controllability as measured by standard 20°/20° zig-zag maneuvers,
f. Type of cargo,
g. Availability of safety standards,
h. Actual or predicted adverse weather conditions.

Based on these and possibly other variables, we are considering establishing a "Factor Table" that would rate a vessel numerically. In conjunction with that, a "Tug Assistance Requirement Table" is being considered that would convert the vessel rating to a minimum tug requirement with additional consideration as to the port area being navigated. Where tugs would be referred to in numbers, a rating unit would have to be established such as a minimum rated bhp of available propulsive power.

Comments are specifically requested on the following areas of interest:

1. Should minimum requirements be set as to vessel size, gross tonnage? If so, what?

2. Should vessel propulsion be considered? If so, how?

3. To what extent should multiple screws or bow thrusters be considered?

4. Is controllability as measured by the standard 20°/20° zig-zag maneuvers a factor that should be considered? Is there another measure which would be more suitable in determining controllability?

5. For dangerous cargoes such as those specified in 33 CFR 124.14, what additional requirements should be established, if any?

6. Are there certain safety standards that could be considered to reduce the number of drugs to be required? If so, what are they and to what degree should they be considered?

7. Is there any need to consider adverse weather conditions or should it be left to the discretion of the Captain of the Port?

8. In attempting to categorize ports and their accesses, what standards if any, should be established for channel dimensions, bottom composition, bands, currents, piers, bridges or other impediments to navigation, amount and type of shipping? What other considerations?

9. For defining a tug unit, what minimum rated bhp should be used? Should some other minimum factor be used?

10. In some other alternative possible that would achieve the desired results?

Comments are welcome on these questions, as well as any other additional recommendation for implementing the objective of port and vessel safety.

This advance notice of proposed rulemaking is issued under the authority of sections 104 and 201(R.S. 4417a(3)) of the Ports and Waterways Safety Act of 1972 (Pub. L. 92–340, 86 Stat. 424), as delegated in 49 CFR 1.46 (n) (4); section 311 (j) of the Federal Water Pollution Control Act, (Pub. L. 92–500, 86 Stat. 862, 33 U.S.C. 1321), as delegated in section 2 of E. O. 11735 (38 FR 21243) and 49 CFR 1.46(m); and the National Environmental Policy Act of 1969 (83 Stat. 852, 42 U.S.C. 4231, et seq.).

Dated: May 3, 1976.

R. I. PRICE,
Chief, Office of Marine Environment and Systems.

[FR Doc.76–13210 Filed 5–5–76;8:45 am]

[33 CFR Part 164]

[CGD 76–051]

MINIMUM NET BOTTOM CLEARANCE

Request for Comments

The Coast Guard is considering amending Part 164 to require the master of a vessel to ensure that there is a minimum net bottom clearance to prevent vessel damage and possible environmental harm.

Interested persons are invited to participate in the making of the proposed rule by submitting written data, views or arguments as the they may desire to the Coast Guard (G–CMC/81), Washington, D.C. 20590. Each person submitting coments should identify the notice number (CGD 76–051) and the name, address and organization, if appropriate, of the commenter.

All comments received by July 6, 1976, will be fully considered and evaluated before taking action on the proposed rule. Copies of all written communications received will be available for examination by the public in room 8117, 400 Seventh Street, SW, Washington, D.C. The proposal contained in this notice may be changed in the light of comments received. If it is determined to be in the public interest to proceed further after consideration of the available date and comments received in response to this notice, a notice of proposed rulemaking will be issued.

Minimum net bottom clearance (also known as net underkeel clearance) is not a new concept. The Permanent International Association of Navigation Congresses, IInd International Oil Tankers Commission (1970–1974) in their paper "Big Tankers and their Reception" defined net underkeel clearance as "the minimal margin remaining under the keel of the vessel moving at planned passage speed under the action of the most severe planned (anticipated) tolerable wind and wave conditions." This organization has recommended 1 meter as the net underkeel clearance for rocky bottoms and 0.5 meter for sandy bottoms.

This notice proposes that there be established a minimum net bottom clearance for vessels coming into U.S. ports similar to the net underkeel clearance required in various foreign ports. The Coast Guard is seeking information to help develop reasonable requirements or factors that should be considered in the development of practical requirements. Factors under consideration which can diminish the at-rest bottom clearance under actual operating conditions include water level, water density, squat, trim, list and wave action.

Comments are specifically requested on the following:

1. What should be the minimum net bottom clearance?

2. What should be the clearance where the nature of the bed is such as to be capable of rupturing a vessel's bottom?

3. Is there any definition of channel depth other than the latest information published by the United States Government which can be reliably and consistently used?

4. Would an overall specification of permissable depth draft ratio be preferable to the categorized approach set forth in the foregoing?

5. Should vessels with complete double bottom integrity, not containing pollutants within the double bottoms, be permitted to operate with less net bottom clearance than other vessels not so equipped? If so, what should the net bottom clearances be?

Comments are welcome on these questions and suggestions, as well as any adidtional recommendation concerning minimum net bottom clearance.

(Sec. 311 (j) (1), 86 Stat. 8662 (33 U.S.C. 1321 (j) (1)); sec. 201(3), 86 Stat. 427, as amended 46 U.S.C. 391a(3)); 49 CFR 1.46 (m) and (n) (4))

Dated: May 3, 1976.

R. I. PRICE,
Chief, Office of Marine Environment and Systems.

[FR Doc.76–13211 Filed 5–5–76;8:45 am]